

Remarks

As indicated in the Office action dated June 15, 2004, claims 1-28 are pending in the present application. With respect to this Amendment, claims 13-15 and 22 are amended, leaving claims 1-12, 16-21 and 23-28 unchanged. No new matter has been added by this Amendment. Applicant thanks the Examiner for the allowance of claims 23-28 and submits claims 1-22 for further consideration.

With respect to paragraph 1 of the present Office action, the drawings stand objected to under 37 U.S.C. § 1.83(a) for failure to show every feature of the invention specified in the claims, specifically, the subject matter recited in claims 8 and 16. Accordingly, the Applicant submits new Figures 7 and 8. Figure 7 depicts the plurality of straps included in the outer material layer recited in claim 8 and supported by paragraphs [0025] and [0026] of the present specification. Figure 8 depicts the curable material patch positioned on the outer material layer of the apparatus as recited in claim 16 and supported by paragraph [0020]. Furthermore, the specification has been amended to include a brief description of Figures 7 and 8 as well as reference numerals for the figures. No new matter has been added to the application. Applicant respectfully requests that the objection to the drawings be withdrawn in light of the drawing and specification amendments.

With respect to paragraph 2 of the present Office action, claim 22 stands objected to for lacking proper antecedent basis. Claim 22 has been amended to correct the informality by this Amendment. Accordingly, the objection to claim 22 should be withdrawn.

With respect to paragraph 7 of the present Office action, claims 13-15 stand objected to as being dependent upon a rejected base claim. Accordingly, claims 13-15 have been rewritten in independent form including all of the limitations of the base claim and any intervening claims, if applicable. As indicated by the Office, claims 13-15 are now in allowable form and the objection to the claims should be withdrawn.

Claim Rejections – 35 U.S.C. § 103

With respect to paragraphs 3-5 of the present Office action, claims 1-12 and 16-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,901,752

(“Lundman”) in view of U.S. Patent No. 4,514,447 (“Boxmeyer”). To establish a *prima facie* case of obviousness under Section 103, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. M.P.E.P. § 2143. The Office’s rejections do not meet the above criteria.

First, there is no suggestion or motivation to combine the teachings of Lundman with the teachings of Boxmeyer. Lundman discloses an inflatable apparatus for sealing a pipeline. The apparatus of Lundman is able to be inserted and removed from the pipeline. Accordingly, the apparatus is able to inflate and deflate and is also flexible. Boxmeyer discloses an inflatable structural column for erecting structures (see Boxmeyer, col. 7, lines 54-55). Boxmeyer does not teach or fairly suggest using the inflatable structural columns for the repair of a pipeline, as suggested by the Office (see Office action, paragraph 3, page 5). Rather, the structural columns of Boxmeyer are “light weight, yet rigid, and can be manufactured in relatively long lengths, yet can be stored in a greatly reduced space until ready for use, at which time it is transformed into a rigid, erect, ***permanent structure***” (see Boxmeyer, col. 7, lines 49-54). No motivation exists to combine the teachings of an inflatable apparatus for repairing a rupture in a pipeline with an inflatable column for capable of being stored in a deflated state prior to its use as a permanent structure.

Second, even if there was a motivation or a suggestion to combine these references, the resulting combination would not produce a reasonable expectation of success. As mentioned previously, the inflatable columns of Boxmeyer are intended to be a permanent fixture during use. The columns include a filament reinforced matrix structure including resin impregnated filament of high tensile strength. According to the specification, curing of the resin matrix is inhibited in order for the column to be stored in a collapsed state. Prior to use, the column is inflated with a fluid and heated to enable curing of the resin matrix (see Boxmeyer, col. 1, lines 45-53 and col. 7, lines 3-10).

If the teachings of Boxmeyer are combined with the teachings of Lundman, the resulting inflatable apparatus would not be able to be removed from the pipeline after the rupture in the pipeline is repaired. Accordingly to the teachings of Boxmeyer, the resulting apparatus would be cured in order to withstand the pressures of 150 psi, and thus be a permanent fixture in the pipeline as the Boxmeyer inflatable column was intended. This would prohibit the removal of the apparatus from the pipeline and result in an inoperable pipeline, defeating the purpose of repairing the pipeline's rupture.

Therefore, the Office's rejections lack both motivation to combine the references and reasonable expectation of success resulting from the combined teachings. Accordingly, no prima facie case has been established and the rejections of claims 1-12 and 16-20 should be withdrawn.

With respect to paragraph 6, claims 21 and 22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Lundman in view U.S. Patent No. 6,276,398 ("Lange") as applied to claim 19 and further in view of U.S. Patent No. 4,291,727 ("Yie"). However, claim 19 was rejected as being unpatentable over Lundman in view of Boxmeyer (see Office action, paragraph 3), and since no motivation to combine the teachings of Lundman with the teachings of Boxmeyer exists and, furthermore, despite the lack of motivation, there is no reasonable expectation of success from the resulting combination, the rejection of claim 19 should be withdrawn.

Claims 21 and 22 depend from claim 19 and are allowable for the same reasons that claim 19 is allowable, as well as other reasons, which for the sake of brevity, are not discussed. Accordingly, the rejection of claim 21 and 22 should be withdrawn.

In light of the amendments and remarks above, the Applicant respectfully requests entry of this Amendment and the allowance of claims 1-12 and 16-22. The undersigned is available for telephone consultation at any time.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Elizabeth A. Egasti'.

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Amendments to the Drawings

As requested, please add Figs. 7 and 8 to the present application. One sheet of drawings including Figs. 7 and 8 are attached hereto. No new matter has been added.